

OPERATION AND PARTS MANUAL



GLOBUG SERIES MODEL GBC/GBCE CART TYPE LIGHTING SYSTEM

Revision #1 (03/25/14)

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publication, visit our website at:
www.multiquip.com



THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



CALIFORNIA — Proposition 65 Warning

Gasoline engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

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GBC/GBCE

Lighting System

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NOTICE

Specifications and part numbers are subject to change without notice.

PARTS ORDERING PROCEDURES

www.multiquip.com

Ordering parts has never been easier! Choose from three easy options:

Effective:
January 1st, 2006



Order via Internet (Dealers Only):

Order parts on-line using Multiquip's SmartEquip website!

- View Parts Diagrams
- Order Parts
- Print Specification Information



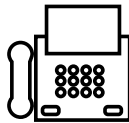
If you have an MQ Account, to obtain a Username and Password, E-mail us at: parts@multiquip.com.

To obtain an MQ Account, contact your District Sales Manager for more information.

Goto www.multiquip.com and click on **Order Parts** to log in and save!

Use the **internet** and qualify for a **5% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Fax (Dealers Only):

All customers are welcome to order parts via Fax.

Domestic (US) Customers dial:
1-800-6-PARTS-7 (800-672-7877)

Fax your order in and qualify for a **2% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Phone: Domestic (US) Dealers Call:
1-800-427-1244

Non-Dealer Customers:

Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



International Customers should contact their local Multiquip Representatives for Parts Ordering information.

When ordering parts, please supply:

- | | |
|---|--|
| <input type="checkbox"/> Dealer Account Number | <input type="checkbox"/> Specify Preferred Method of Shipment: |
| <input type="checkbox"/> Dealer Name and Address | <input checked="" type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> DHL |
| <input type="checkbox"/> Shipping Address (if different than billing address) | <input type="checkbox"/> Priority One <input checked="" type="checkbox"/> Truck |
| <input type="checkbox"/> Return Fax Number | <input type="checkbox"/> Ground |
| <input type="checkbox"/> Applicable Model Number | <input type="checkbox"/> Next Day |
| <input type="checkbox"/> Quantity, Part Number and Description of Each Part | <input type="checkbox"/> Second/Third Day |

NOTICE

All orders are treated as *Standard Orders* and will ship the same day if received prior to 3PM PST.

WE ACCEPT ALL MAJOR CREDIT CARDS!



SAFETY INFORMATION


Do not operate or service the equipment before reading the entire manual. Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the safety messages and operating instructions could result in injury to yourself and others.





SAFETY MESSAGES

The four safety messages shown below will inform you about potential hazards that could injure you or others. The safety messages specifically address the level of exposure to the operator and are preceded by one of four words: **DANGER**, **WARNING**, **CAUTION** or **NOTICE**.

SAFETY SYMBOLS



 DANGER
Indicates a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY .

 WARNING
Indicates a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY .

 CAUTION
Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE INJURY .

NOTICE
Addresses practices not related to personal injury.

Potential hazards associated with the operation of this equipment will be referenced with hazard symbols which may appear throughout this manual in conjunction with safety messages.

Symbol	Safety Hazard
	Burn hazards
	Electric shock hazards

SAFETY INFORMATION

GENERAL SAFETY

CAUTION

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, respiratory protection, hearing protection, steel-toed boots and other protective devices required by the job or city and state regulations.



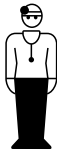
- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication.
- **NEVER** operate this equipment under the influence of drugs or alcohol.



- **ALWAYS** check the equipment for loosened threads or bolts before starting.
- **DO NOT** use the equipment for any purpose other than its intended purposes or applications.

NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest **fire extinguisher**.
- **ALWAYS** know the location of the nearest **first aid kit**.
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**. Also, know the phone numbers of the nearest **ambulance, doctor and fire department**. This information will be invaluable in the case of an emergency.



SAFETY INFORMATION

LIGHTING SYSTEM SAFETY

WARNING

- **NEVER** disconnect any **emergency or safety devices**. These devices are intended for operator safety. Disconnection of these devices can cause **severe injury, bodily harm or even death**. Disconnection of any of these devices will void all warranties.

CAUTION

- **NEVER** attempt service on a running machine.

NOTICE

- To prevent the lighting system from overturning, **NEVER** use in winds that exceed 22 mph (10 m/s).
- The lighting system should only be used in temperatures between 23° to 104°F (-5° to 40° C). Failure to comply with these operating parameters could cause the lamp to malfunction and shorten the ballast life.
- **ALWAYS** keep the lighting system in proper running condition.
- Fix damage to lighting system and replace any broken parts immediately.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children and unauthorized personnel.

LAMP SAFETY

WARNING

- **NEVER** attempt to replace lamp with the power on. Always unplug the power cord from the generator or power source when changing the lamp.
- **ALWAYS** allow a sufficient amount of time for the lamp to **cool** before changing. The possibility exists of severe burns.

CAUTION

- **NEVER** use force when installing the lamp. Excessive force could cause the lamp to break, causing bodily harm.

NOTICE

- **NEVER** leave any grease or oil residue on lamp surface when replacing or removing lamp. This can create hot spots, reducing the service life of the lamp.
- **ALWAYS** make sure lamp surface is clean and dry.
- **ALWAYS** replace with MQ recommended type lamp. See parts section of this manual.
- If applicable, **ALWAYS** make sure the lamp guard is installed correctly. **NEVER** deform the lamp guard.
- **NEVER** unplug the lamp's AC power cable during operation.
- **ALWAYS** have a **trained technician** to install and remove lamp or replace any damaged fixture wiring.

SAFETY INFORMATION

BALLOON SAFETY

WARNING

- To prevent serious burns, **NEVER** touch or unzip the balloon envelope when the lamp is on.



CAUTION

- **ALWAYS** keep the balloon away from sharp objects and excessive amounts of heat.

NOTICE

- To prevent balloon deformation, **NEVER** use lighting system in strong winds.
- **DO NOT** place the balloon inside its protective cover until the lamp has had a sufficient amount of time to cool down. This will prevent the balloon's nylon cover from being burned (touching the lamp surface).
- **ALWAYS** place the balloon inside its protective cover after each use. This will prolong the life of the balloon material, keeping it protected from harsh environmental elements.
- Replace balloon immediately if damaged. A damaged balloon will not inflate properly, and may become more damaged by touching the hot lamp surface.
- **DO NOT** use excessive force when zipping and unzipping the balloon. Be gentle with the zipper mechanism. If the zipper is broken, the balloon will become unusable.

GENERATOR SAFETY

If using a generator to power lighting system, refer to applicable generator manual safety information section.



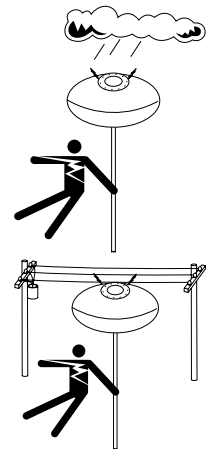
ELECTRICAL SAFETY

DANGER

- Lighting system is equipped with a ground pin on the power plug. For your protection, **ALWAYS** complete the grounding path. **NEVER** insert the AC power plug into a 2-prong receptacle to operate lighting system.

When applying power to the lighting system, **ALWAYS** connect the AC power plug to a 3-prong receptacle that is grounded. The possibility exists of **electrical shock, electrocution and even death** if the lighting system is not grounded.

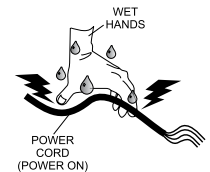
- **NEVER** operate lighting system or handle any electrical equipment while standing in water, while barefoot, while hands are wet or in the rain. A dangerous **electrical shock** could occur, causing **severe bodily harm or even death**.
- **ALWAYS** make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death**.



Power Cord/Cable Safety

DANGER

- **NEVER** let power cords or cables **lay in water**.
- **NEVER** use **damaged** or **worn** cables or cords. Inspect for cuts in the insulation
- **NEVER** grab or touch a live power cord or cable with wet hands. The possibility exists of **electrical shock, electrocution or death**.
- Make sure power cables are securely connected. Incorrect connections may cause **electrical shock** and damage to the lighting system.



NOTICE

- **ALWAYS** make certain that proper power or extension cord has been selected for the job. See Cable Selection Chart in this manual.

SAFETY INFORMATION

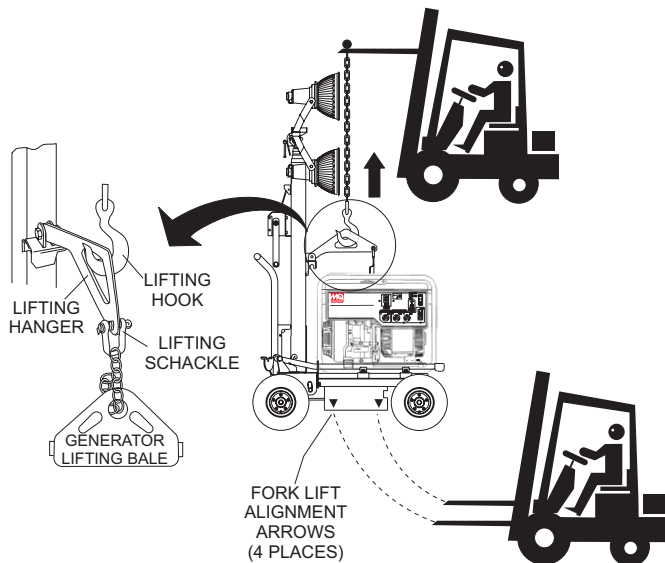
LOADING AND UNLOADING

Cart Type - With Lifting Hook

If lighting system is equipped with a transport lifting hook, refer to the following safety information.

CAUTION

- Before lifting, make sure that lighting system parts are not damaged and screws are not loosened or lost.
- **ALWAYS** make sure crane or lifting device has been properly secured to lifting hook of the equipment.
- **NEVER** lift the equipment while lighting system is running.
- Make sure the mast is completely lowered before lifting the lighting system.
- Use adequate lifting cable (wire or rope) of sufficient strength.
- Use one point suspension hook and lift straight upwards.



- Never allow any person or animal to stand underneath the equipment while lifting.
- **DO NOT** lift machine to unnecessary heights.

Cart Type - No Lifting Hook

If lighting system is not equipped with a transport lifting hook and the mast is removable, refer to the following safety information.

- Before lifting, make sure that the mast and lamp are removed as described in the manual.
- The cart can be safely lifted by two persons to the transport vehicle.

TRANSPORTING SAFETY

NOTICE

- When transporting the lighting system, if applicable, always place in **stow position** and place mast in its carrying case.
- **ALWAYS** remove balloon/lamp assembly from the mast when transporting lighting system. This will prevent damage to the bulb due to vibration.
- **NEVER** leave the balloon/lamp exposed during transport. Exposure to excess wind or rain could damage the balloon's nylon cover.
- **ALWAYS** place balloon inside its protective cover during transport. Be sure the cover is secured tightly around the balloon/lamp assembly.

SPECIFICATIONS

Table 1. Specifications	
Model	GBC/GBCE
Input Voltage	120 VAC
Max. Current	9.3 A @ 120 V
Frequency	50-60 Hz Single-Phase
Lamp Type	1,000 Watt Metal Halide
Total Luminous Flux	107,000 lm
Standard Balloon Diameter	47.2 in (1200 mm)
Light Coverage (360°)	90 ft (27.4 meters)
Lamp Surface Temperature (Longitudinal)	476.6° F (247° C) max
Lamp Surface Temperature (Transversal)	417.2° F (214° C) max
Balloon Dimensions (L x W x H)	47.2 x 47.2 x 28.3 in. (1200 x 1200 x 720 mm)
Balloon Material	Polyester
Balloon Heat-Resisting Temperature	320-356° F (160-180° C)
Internal Balloon Temperature	126° F (52° C)
Balloon Water Resistance	1,500 mm H ₂ O
Fan Motor Voltage	100 VAC
Fan Motor Current	0.45/0.55 A
Fan Motor Pressure	.347/.372 kPA (.050/.054 psi)
Outriggers	3
Mast - Number of Stages	3 (air shock absorbers)
Dimensions (L x W x H) Upper Working Position	51.2 x 52.2 x 94.5 to 15.7 in (1,300 x 1,325 x 2,400 to 3,700 mm)
Dimensions (L x W x H) Storage	27.6 x 40 x 47.7 in (700 x 1,023 x 1,212 mm)
Weight	GBC - 126 lb (57.2 kg) GBCE - 130.7 lb (59.3 kg)
Appropriate Generator	1700 Watts

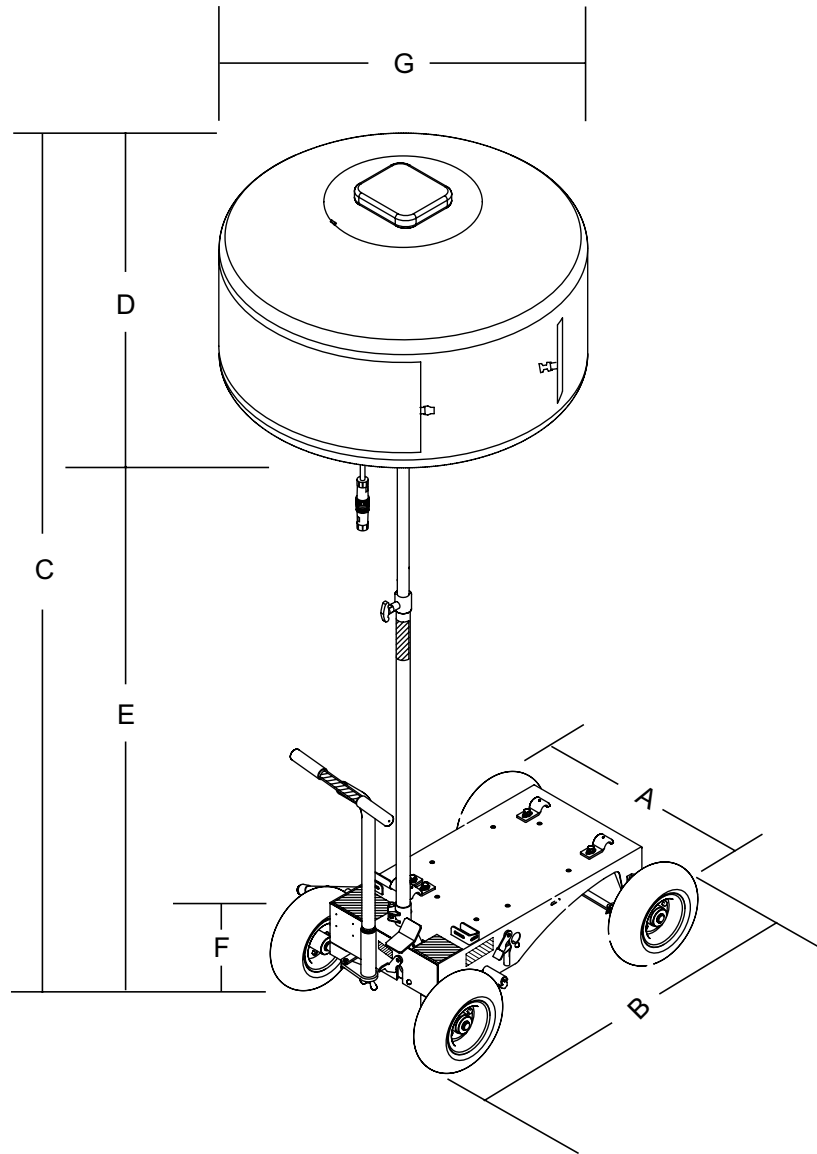
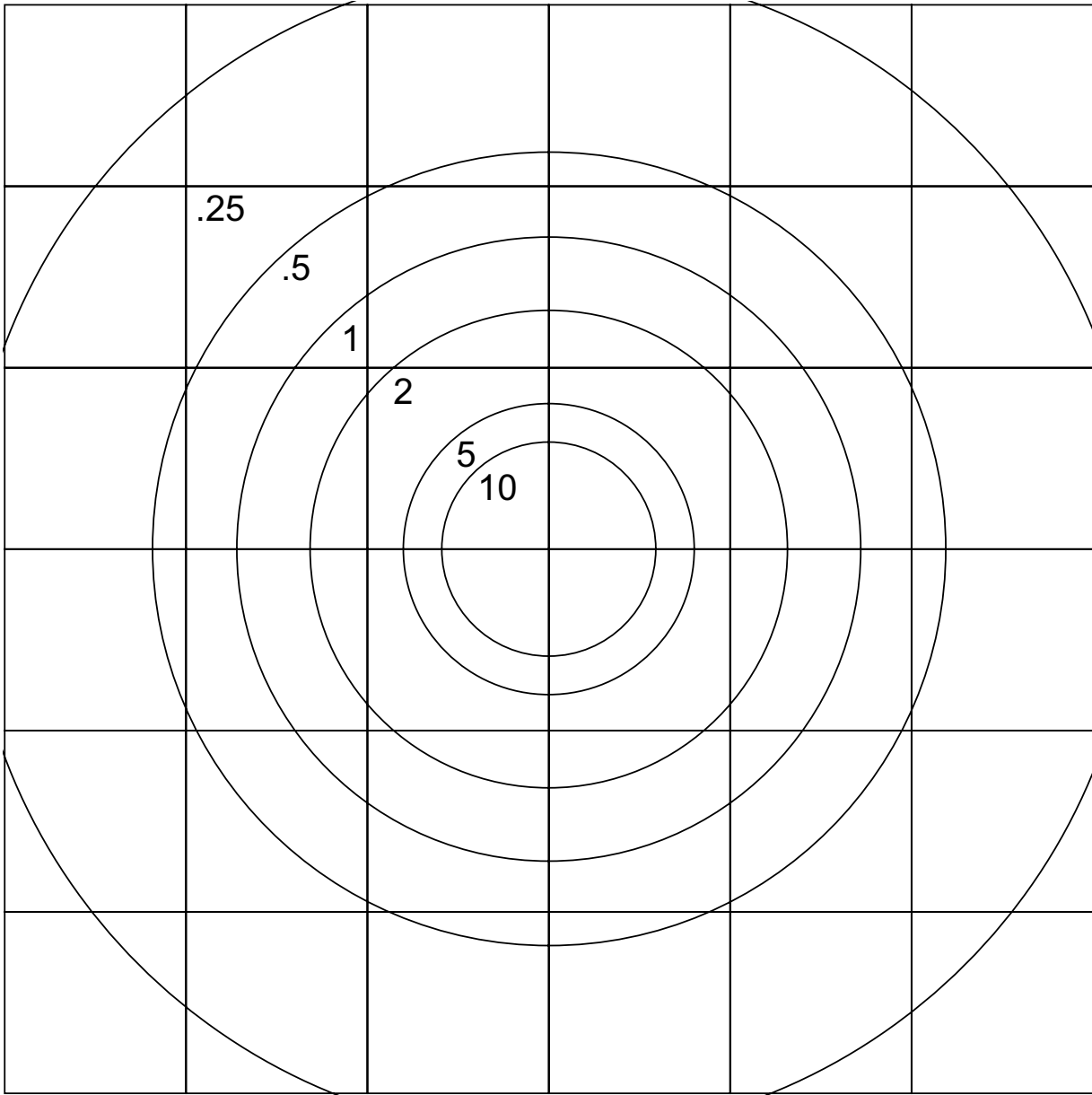


Figure 1. GBC/GBCE Dimensions

Table 2. Dimensions		
Reference Letter	Description	Dimension inches (mm)
A	Cart Width	27.6 (700)
B	Cart Length	40.5 (1,029)
C	Total Max. Height (with Standard Balloon)	GBC - 127.3 (3,233) GBCE - 180.7 (4,590)
D	Standard Balloon Height	28.3 (718.8)
E	Mast Height (without Balloon)	99 (2,515)
F	Cart Height	12 (305)
G	Standard Balloon Diameter	47.2 (1,200)

FOOTCANDLE PLOT



VALUES LISTED AS FOOTCANDLES

SCALE: 1 GRID = 50 FT. (15.24 METERS)

Figure 2. Illumination Range

GENERAL INFORMATION

The Multiquip GBC/GBCE Lighting System is a general purpose floodlight tower intended for emergency and remote lighting needs. It is universally adaptable to all AC power supplies and accepts 50/60 Hz, 100-240 V.

The GBC/GBCE uses a single 1,000 watt lamp with pure white light for maximum illumination with a light coverage of up to 150 feet. The standard balloon (GBP) that comes with the GBC/GBCE provides 360° glarefree illumination. The balloon is self-inflating and easy to install and inflate in less than 20 seconds.

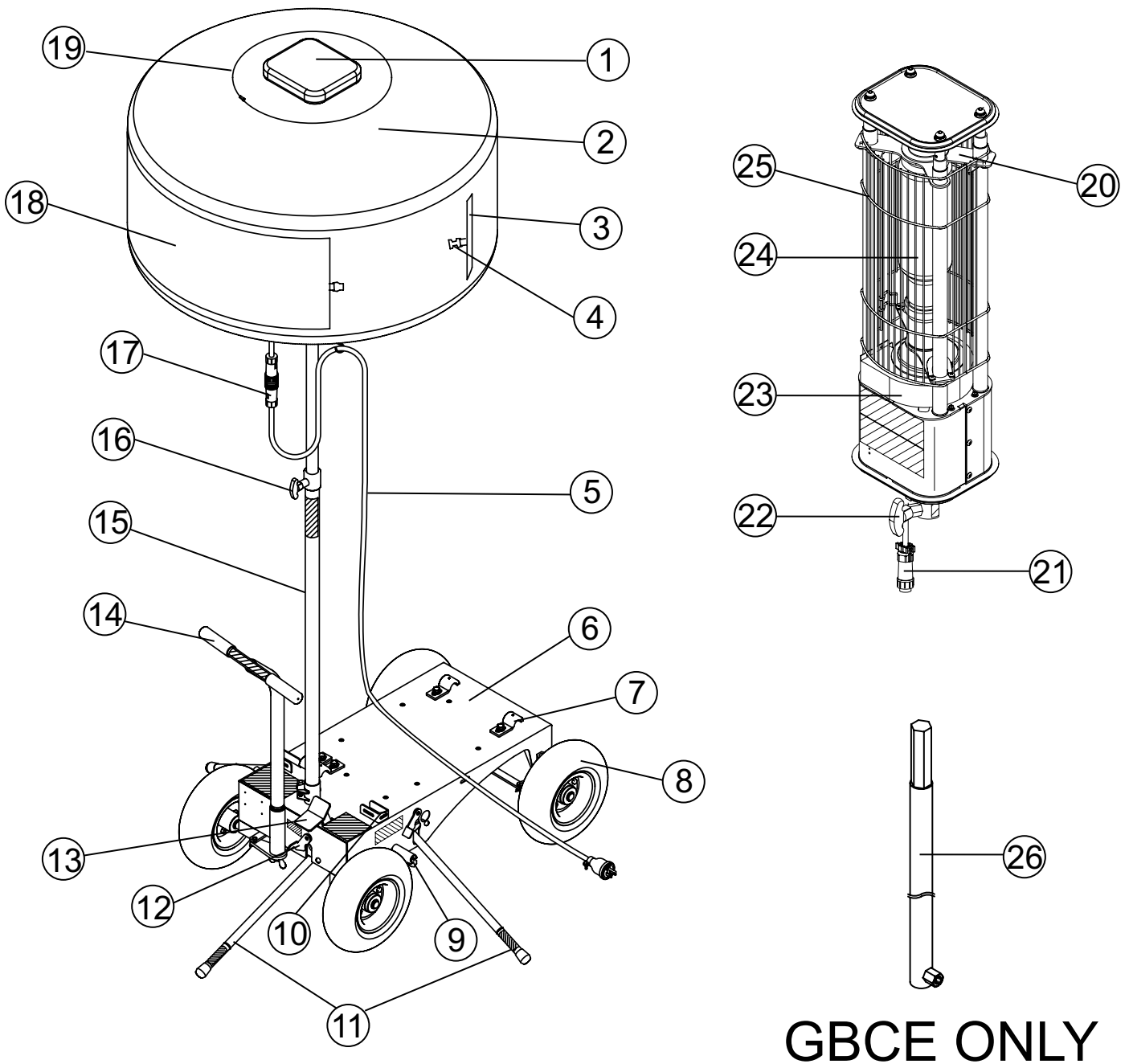
The GBC/GBCE has a three-stage mast that extends to a height of up to 12 feet. It has a steerable cart design for easy transportation. Three outriggers on the cart ensures great stabilization. (GBCE includes an additional 35-inch extension pole).

The GBC/GBCE can be powered by a variety of Multiquip's series generators with an output power of 1.7 kW or greater.

If an extension cord is necessary to connect to a power source, refer to Table 3 to select the proper length.

Table 3. Extension Cord Gauge Selection										
Ampere Rating Range	Volts	Length of Cord in Feet								
	115V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
	230V	50 Ft.	100 Ft.	200 Ft.	300 Ft.	400 Ft.	500 Ft.	600 Ft.	800 Ft.	1000 Ft.
0 - 2		18	18	18	16	16	14	14	12	12
2 - 3		18	18	16	14	14	12	12	10	10
3 - 4		18	18	16	14	12	12	10	10	8
4 - 5		18	18	14	12	12	10	10	8	8
5 - 6		18	16	14	12	10	10	8	8	6
6 - 8		18	16	12	10	10	8	6	6	6
8 - 10		18	14	12	10	8	8	6	6	4
10 - 12		16	14	10	8	8	6	6	4	4
12 - 14		16	12	10	8	6	6	6	4	2
14 - 16		16	12	10	8	6	6	4	4	2
16 - 18		14	12	8	8	6	4	4	2	2
18 - 20		14	12	8	6	6	4	4	2	2

COMPONENTS



GBCE ONLY

Figure 3. GBC/GBCE Components

COMPONENTS

Figure 3 shows the location of the controls and components for the GBC/GBCE Lighting System. The functions of each control is described below:

1. **Balloon Cover** — Stores balloon when GBC/GBCE is not in use. Allow a sufficient amount of time for the lamp to cool down before storing balloon. Possibility exists of balloon getting burned.
2. **Balloon** — Made of heat resistant polyester, with a diameter of 47.2 inches (1,200 mm). Balloon is self-inflating and inflates in less than 20 seconds.
3. **Velcro** — Used to easily attach optional message strip to the balloon.
4. **Buckle** — Used to hold the balloon together when storing inside the cover.
5. **AC Power Cable** — connects to the AC power source (generator) on one end and to the lamp connector on the other end with quick-disconnect connector.
6. **Cart** — holds the generator and can be steered easily to transport GBC/GBCE to different locations.
7. **Locking Clamps** — To secure the generator to the cart platform, place clamps around the pipe frame of the generator. Tighten securely to prevent movement.
8. **Tire** — The GBC/GBCE uses four pneumatic tires for easy maneuverability.
9. **Brake Pad** — When the brake pedal is pressed, this pad will strike and hold the rear tires in place.
10. **Strap Slots** — Allows suitcase generators to be strapped to cart securely.
11. **Outriggers** — provides stability to the GBC/GBCE. When raising the mast, outriggers should always be deployed.
12. **Counter Weight** — Locks the outriggers in place when they are deployed or stowed.
13. **Brake Pedal** — Step on this pedal and pull back T-handle to apply the brakes. To release the brakes, press down and hold brake pedal again then release.
14. **T-Handle** — Moves the GBC/GBCE in either forward or reverse direction by pulling back or pushing forward. The T-handle also allows the cart to be steered left or right.
15. **Mast** — This mast is comprised of three separate stages. The mast can be raised in excess of 8 feet (without balloon).

WARNING

When raising the mast, always be on the lookout for overhead obstructions.

16. **Mast Bolt** — Loosen to raise mast and tighten to keep the mast in place when raised to the desired height.
17. **AC Power Cable Connector** — Connect this quick-disconnect plug to the balloon connector.
18. **Message Strip (OPTIONAL)** — a 12 x 43 inch message strip (Part No. GBBALD1) may be attached to the balloon. The message strip can be purchased separately.
19. **Zipper** — Zips up balloon to completely close it when lamp is in place.
20. **Lamp Holder** — Holds lamp in place. Lamp is screwed into socket.
21. **Balloon Connector** — Connect this connector to the AC power cable connector.
22. **Lamp/Balloon Bolt** — used to tighten mast when attached to the lamp/balloon assembly.
23. **Fan Motor (Blower)** — inflates the balloon as soon as power is applied to the GBC/GBCE.
24. **Lamp** — 1000 watt metal halide bulb with pure white light for maximum illumination.
25. **Lamp Guard** — Protects the lamp from being hit by objects and balloon material from touching lamp.
26. **Extension Pole (GBCE Only)** — Extends mast height by 40 inches.

1. Set the GBC/GBCE cart on a firm level surface where there is enough space around the cart for the outriggers to be deployed.
2. Insert the T-handle into the handle holder on the cart. Tighten with the wing bolt. See Figure 4.

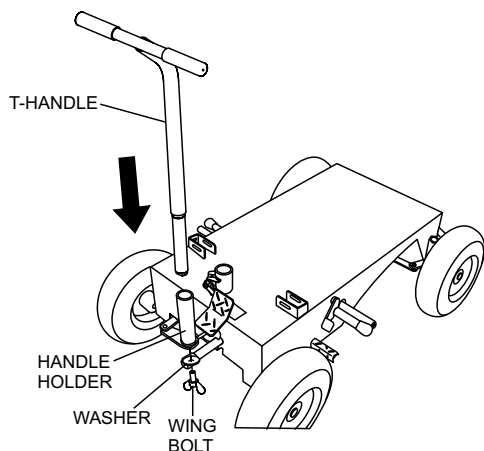


Figure 4. T-Handle Installation

3. Insert the mast into the mast holder and secure with lever as shown in Figure 5.

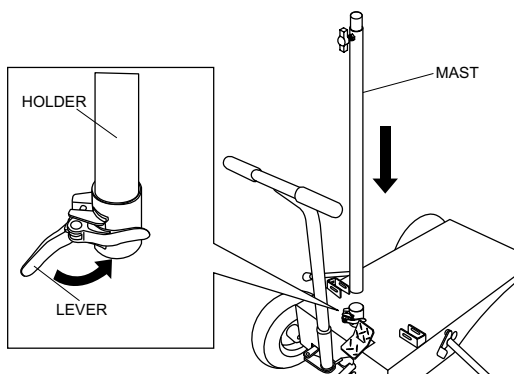


Figure 5. Inserting the Mast Into Holder

4. For the GBCE, attach the extension pole to the top of the mast as shown in Figure 6.

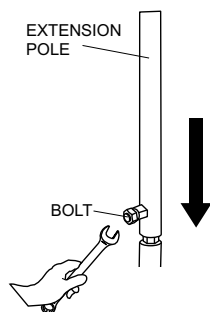


Figure 6. Extension Pole Attachment

5. Insert the balloon assembly into the mast. Tighten the T-bolt securely. See Figure 7.

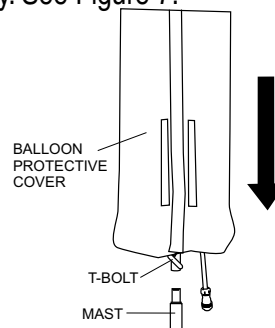


Figure 7. Installing the Balloon

6. Unsnap the three buttons on the bottom of the balloon cover and unzip the cover. See Figure 8.
7. Remove the AC Power Cable from the inside pocket of the balloon cover.

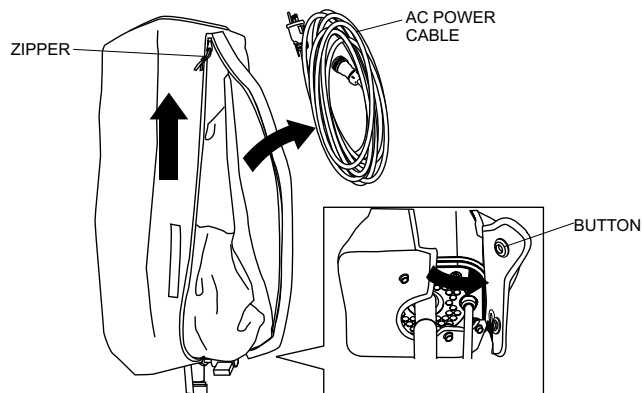


Figure 8. Removal of AC Power Cable from Balloon Cover

8. Fold the balloon cover into itself and zip it up. See Figure 9.

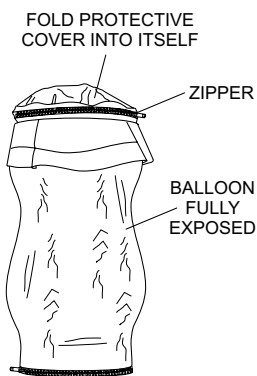


Figure 9. Folding Balloon Cover

9. Connect the power cable to the lamp cable connector. See Figure 10.

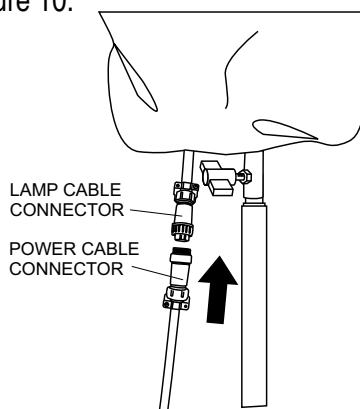


Figure 10. Connecting the Power Cable

10. Secure the power cable by hooking it to the eyelet on the bottom of the balloon as shown in Figure 11.

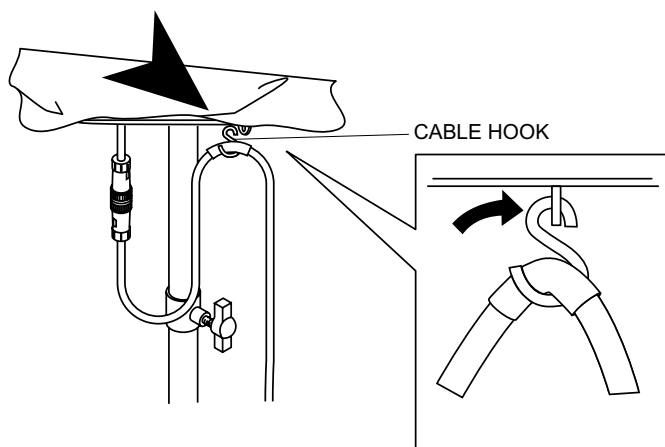


Figure 11. Securing Cable with Hook

11. Release the buckle on the belt holding the balloon together. See Figure 12.

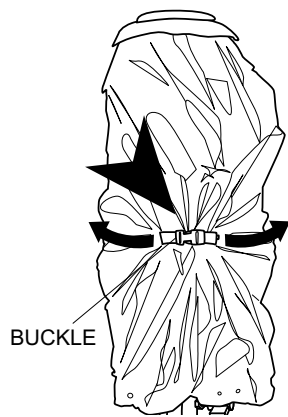


Figure 12. Releasing Buckle

APPLYING PARKING BRAKE

1. Step on the brake pedal while pulling on the T-handle until the brake pedal is all the way down. See Figure 13.

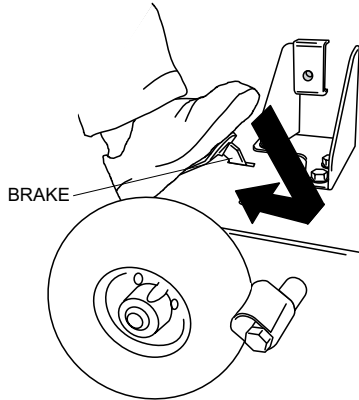


Figure 13. Applying Brake

RELEASING PARKING BRAKE

1. Step on the brake pedal, hold then release. See Figure 14. This will disengage the braking mechanism and will allow the GBC/GBCE to be moved.

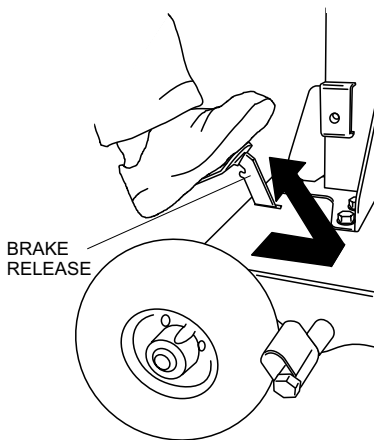


Figure 14. Releasing Brake

DEPLOYING OUTRIGGER

1. Pull up the counterweight that holds the outrigger in place and pull the outrigger all the way out. See Figure 15.

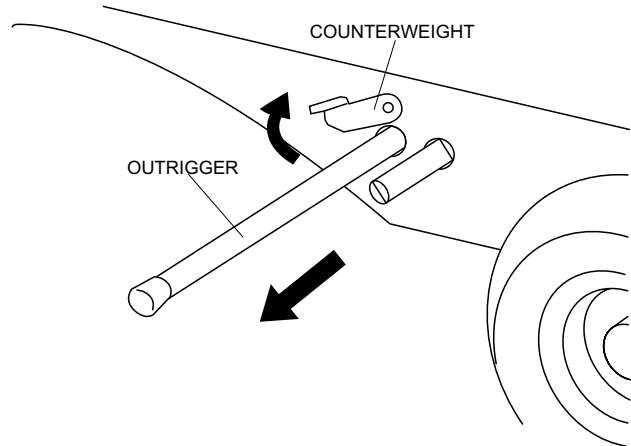


Figure 15. Deploying Outrigger

2. Pull the outrigger down until it touches the ground. Pull down counterweight to lock the outrigger in place. See Figure 16.

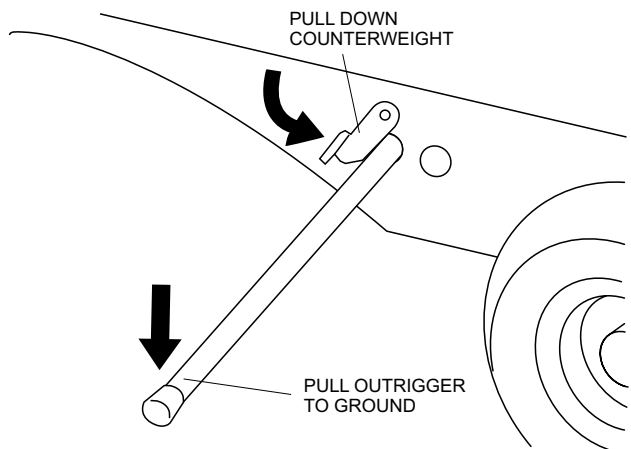


Figure 16. Locking Deployed Outrigger

STOWING OUTRIGGER

1. Pull up the counterweight to unlock the outrigger and pull up outrigger. See Figure 17.

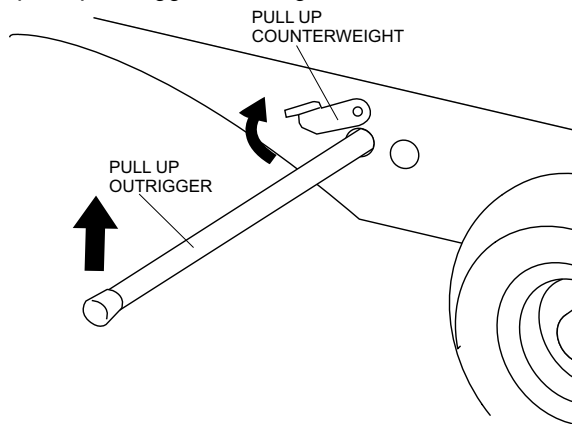


Figure 17. Stowing Outrigger

2. Push in outrigger until it is all the way in and pull down counterweight to lock it in place. See Figure 18.

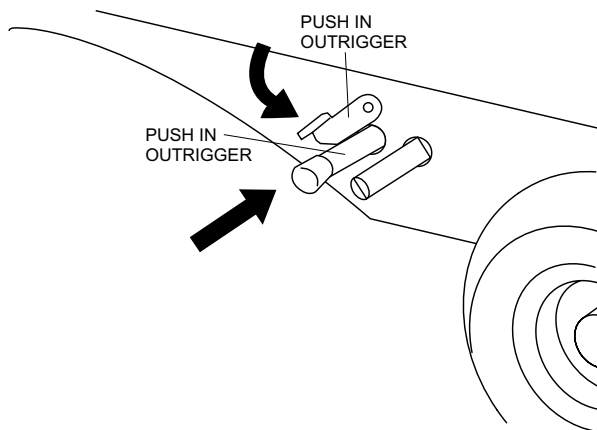
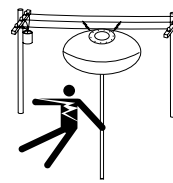


Figure 18. Locking Stowed Outrigger

RAISING THE MAST

⚠ DANGER



ALWAYS make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death.**

⚠ CAUTION

When raising or lowering the mast, keep hands and fingers clear of the mast sections to prevent hand and fingers from getting pinched.

1. Raise the second mast to the desired height and tighten the T-bolt securely. See Figure 19.

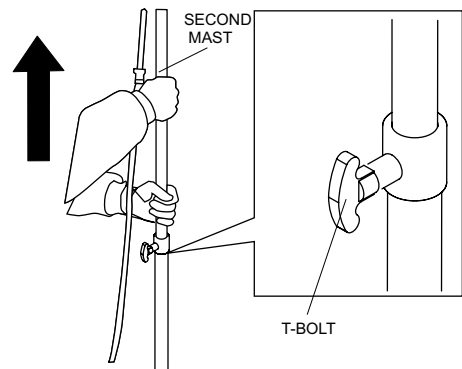


Figure 19. Raising the Second Mast

2. To raise the mast higher, raise the third mast until the lock/release tab pops out. The tab will automatically rest on the second mast. See Figure 20.

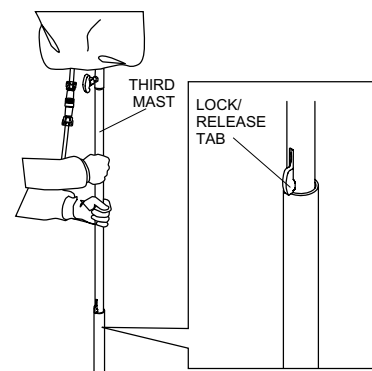


Figure 20. Raising the Third Mast

LOWERING THE MAST

1. Loosen the T-bolt holding the second mast and push mast all the way down. Tighten T-bolt securely. See Figure 21.

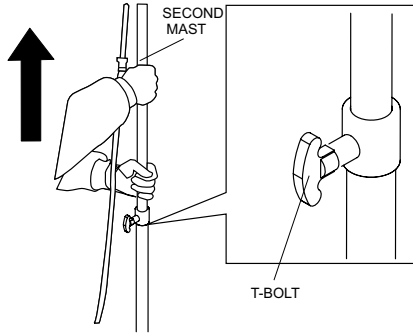


Figure 21. Lowering Second Mast

2. Push the lock/release tab on the third mast to release it and lower third mast. See Figure 22.

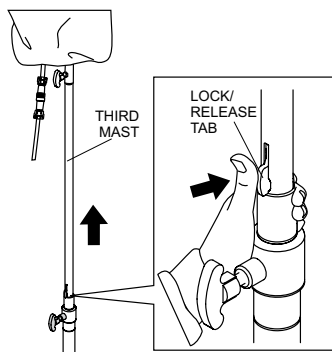


Figure 22. Lowering Third Mast

APPLYING POWER

1. Connect the AC power cable to the 120 VAC receptacle on the generator used. See Figure 23.

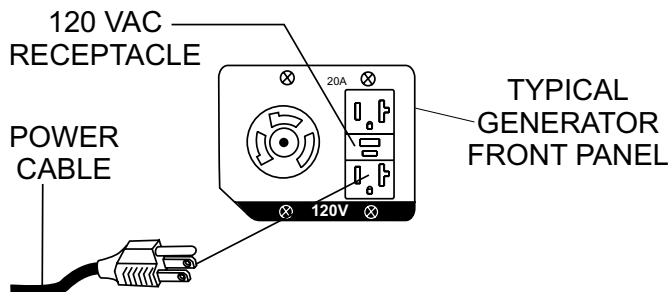


Figure 23. Connecting to Power Source

2. Start the generator as indicated in the generator manual. The balloon will start to inflate and the lamp will turn on.

NOTICE

If the power cable is accidentally unplugged from the power source, wait three to five minutes before reconnecting the power. This will allow time for the fan to reset and ensure balloon will inflate properly when power is reconnected.

SHUTDOWN

1. Turn off the power switch of the generator.
2. Disconnect the AC power cable from the generator. The balloon should start to deflate and the lamp will turn off.

SHUTTING DOWN LAMP ONLY

1. Unzip the bottom of the balloon. See Figure 24.

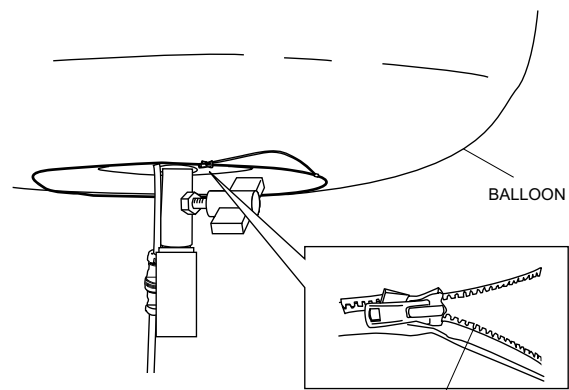


Figure 24. Unzipping Balloon

2. Push the button above the LED with a blunt object for three seconds as shown in Figure 25. LED will turn red and the lamp will turn off. The balloon will remain inflated.

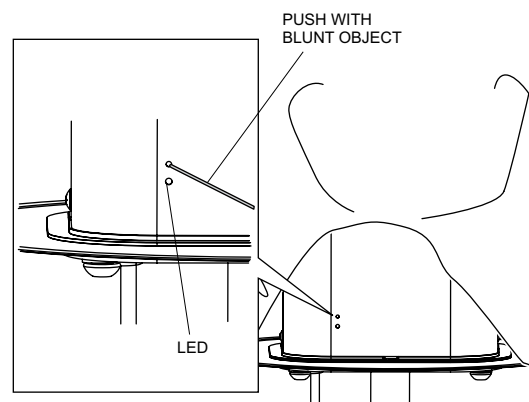


Figure 25. Turning Off Lamp Only

NOTICE

To turn lamp back on, unplug the power cable from the power source. Wait three to five minutes before reconnecting the power. Reconnect the power cable and the lamp should turn on and the balloon will inflate.

STORAGE

Before storing the GBC/GBCE Lighting System, perform the following steps.

NOTICE

Allow about 15 to 20 minutes for the lamp to cool down before storing the GBC/GBCE. The possibility exists of the balloon getting burned if it touches a hot lamp.

1. Disconnect the lamp connector from the AC power cable.
2. Make sure the mast is completely lowered as described in LOWERING THE MAST section.
3. Unhook the AC power cable from the eyelet at the bottom of the balloon.
4. Lock the buckle to secure the balloon together.
5. Unzip the zipper on the protective cover and pull down cover over the balloon/lamp assembly.
6. Place the AC power cable in the pocket inside the protective cover and attach velcro tabs.
7. Loosen the T-bolt on the balloon/lamp assembly and lift balloon/lamp assembly from the mast.
8. Release the lever on the mast holder and pull out the mast.
9. Stow the three outriggers as detailed in the STOWING OUTRIGGER section.

REPLACING LAMP

! DANGER

Never attempt to replace lamp in a wet place. The possibility exists of electric shock.

! WARNING



Always allow sufficient time for the lamp to cool down before replacing. The possibility exists of severe burns if hot lamp is touched.

! CAUTION

Always shutdown power source and remove balloon assembly from mast when replacing a broken lamp. Utmost care should be taken in handling broken lamp. The possibility exists of serious injury from handling a broken lamp.

1. Unzip the zipper at the bottom of the balloon and roll the balloon up to expose the lamp. See Figure 26.

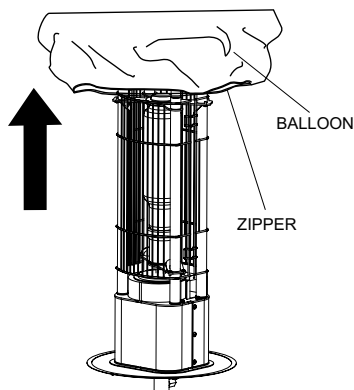


Figure 26. Exposing Balloon

2. Release the lamp guard locking tabs. See Figure 27.

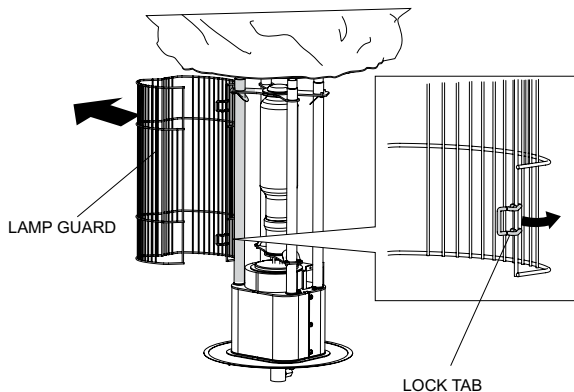


Figure 27. Removing Lamp Guard

3. Remove the lamp guard.
4. Press the tabs on the lamp holder and push up lamp holder to release it from lamp. See Figure 28.

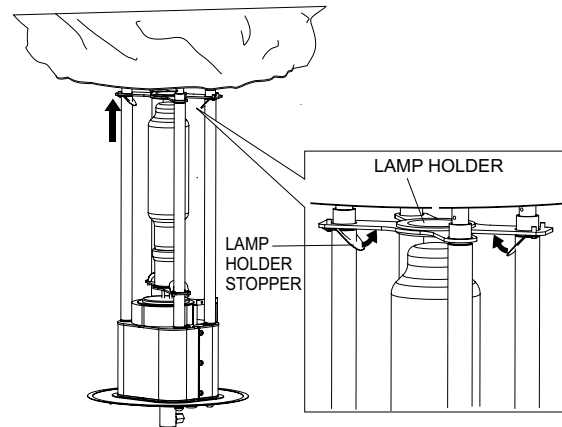


Figure 28. Lamp Holder

5. Remove the lamp from the lamp socket by turning lamp counterclockwise. See Figure 29.

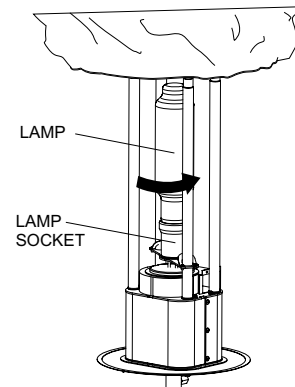


Figure 29. Removing Lamp

6. Install new lamp into socket and turn lamp in a clockwise direction until tight. See Figure 30.

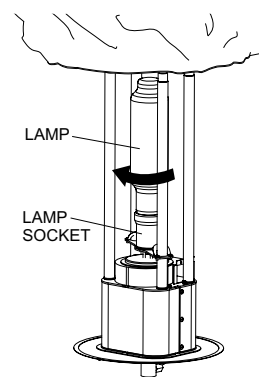


Figure 30. Installing New Lamp

NOTICE

Do not use excessive force when screwing the lamp to prevent lamp from breaking.

7. Secure lamp holder on top of the lamp.
8. Reinstall lamp guard.
9. Pull down balloon and zip the bottom zipper to cover lamp.

REPLACING BALLOON

1. Unzip the top and bottom of the balloon. See Figure 31.

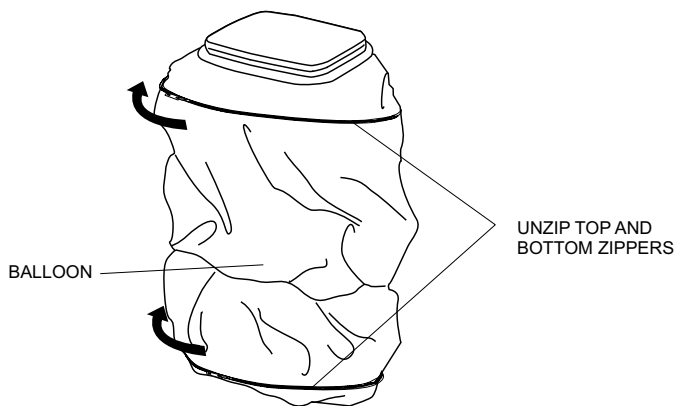


Figure 31. Unzipping Balloon

2. Slide out the old or worn balloon over the top of the lamp guard assembly. See Figure 32.



Figure 32. Removing Old Balloon

3. Slide in the new replacement balloon over the top of the lamp guard assembly. See Figure 33.

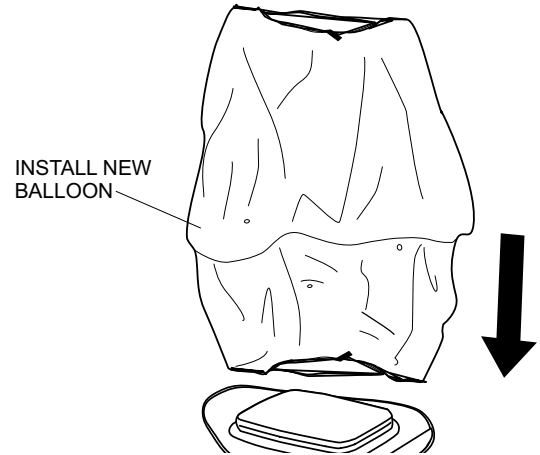


Figure 33. Replacing Balloon

4. Zip up the top and bottom of the new balloon. See Figure 34.

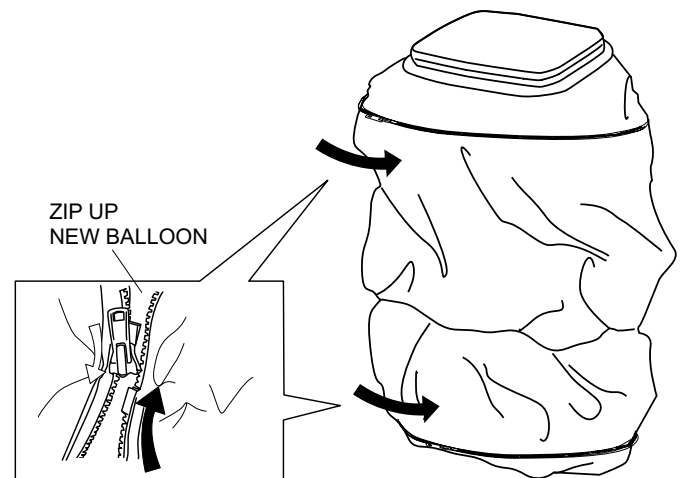


Figure 34. Zipping Up New Balloon

FILTER REPLACEMENT

1. Remove the balloon as described in the STORAGE section.
2. Turn the balloon/lamp assembly upside down to access the filter. See Figure 35.

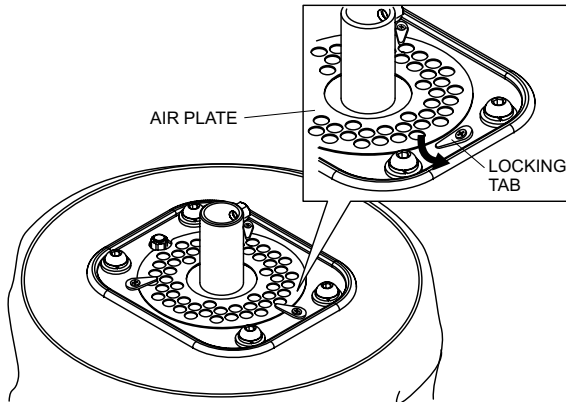


Figure 35. Accessing Filter

3. Turn the three locking tabs outwards to release the air plate. See Figure 35.
4. Remove the air plate and filter. See Figure 36.

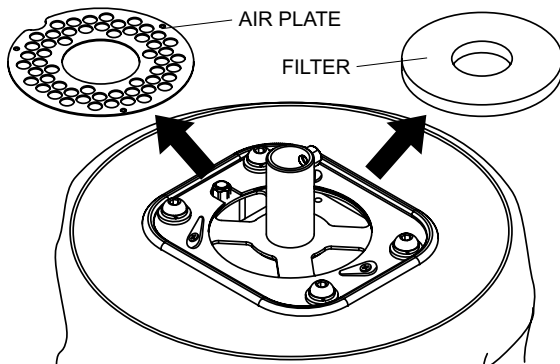


Figure 36. Filter Removal

5. Install a new filter and reinstall the air plate.
6. Turn the three locking tabs inwards to lock the air plate in place. See Figure 37.

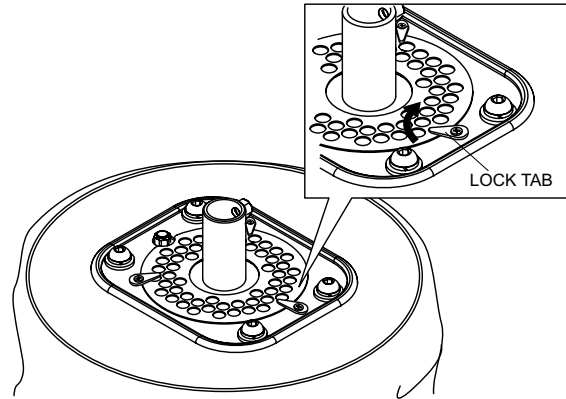


Figure 37. Locking Air Plate

Table 4. Troubleshooting		
SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Lamp does not light.	Is plug disconnected?	Plug in correctly.
	Is generator power switched off?	Turn on switch.
	Is lamp loose?	Screw lamp securely into socket.
	Is power connector disconnected or loose?	Connect disconnected connector.
	Are any other electric appliances (other than light tower) plugged into power source?	Unplug all other appliances.
	Is model of lamp incompatible?	Use genuine MQ lamp.
	Is lamp not cool enough to light again? (Interval of 5 to 10 minutes is required before turning on lamp again)	Wait for lamp to cool down.
Lamp only lights for a short time.	Is ambient temperature too high (more than 104° F (40° C)?	Move lamp where there is proper ventilation.
Balloon does not inflate.	Is fan motor (blower) not working properly?	Check and repair fan motor (blower).
	Is balloon envelope defective?	Repair or replace balloon envelope.

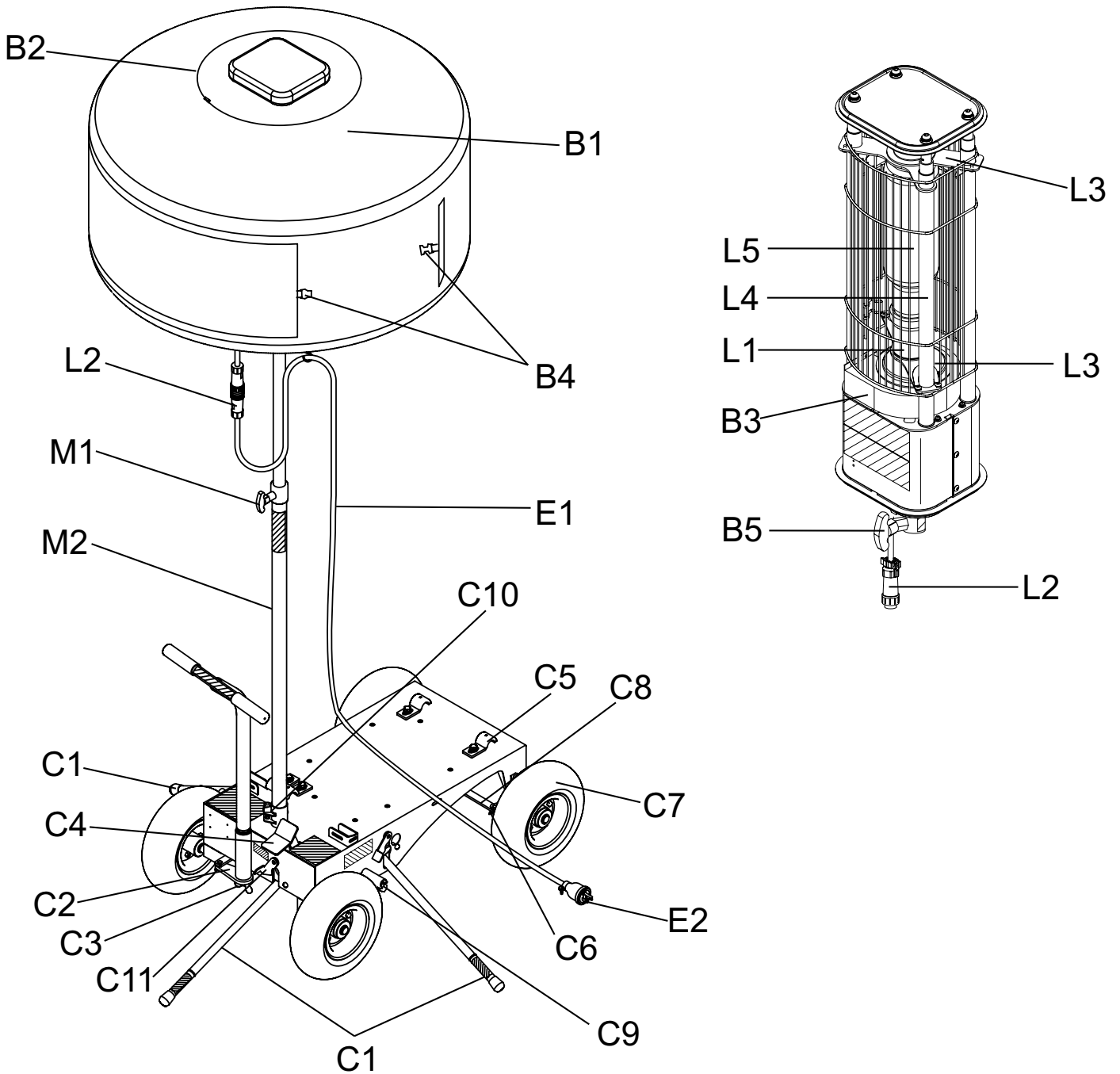


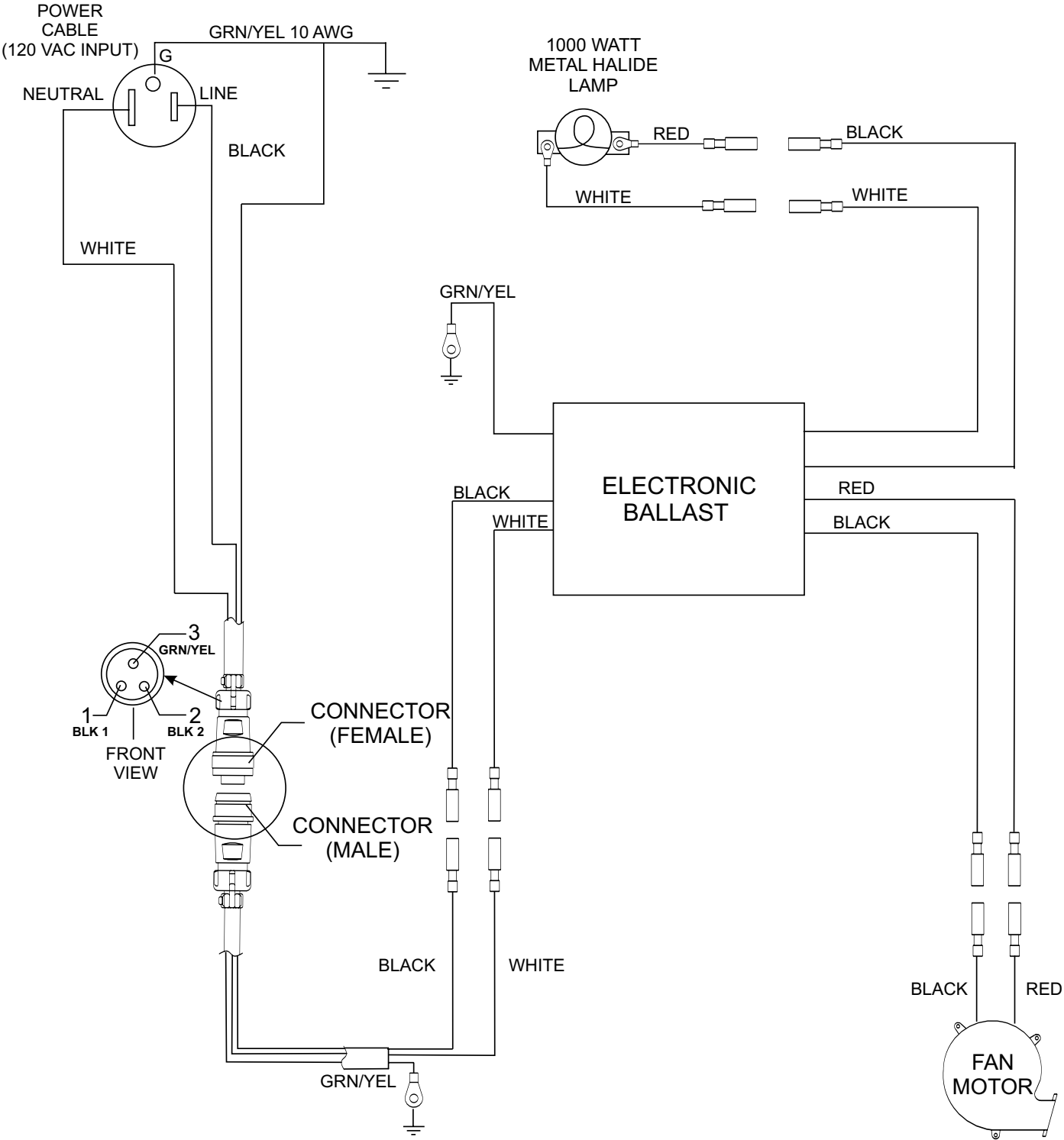
Figure 38. Maintenance Check Points

MAINTENANCE

Table 5. Periodic Check and Maintenance

FIGURE	PART	CHECK ITEM	SOLUTION				
Lamp	L1	Lamp (Base)	Lamp base loose?	Screw in securely.	•		
	L2	Connector	Cable disconnected or loose?	Connect securely.	•		
	L3	Lamp Holder	Lamp holder loose?	Replace.	#		
	L4	Pipe Frame	Pipe Frame skewed?	Replace.	&		
	L5	Lamp	Defective lamp?	Replace.	•		
Balloon	B1	Balloon (Envelope)	Defective or dirty?	Replace.	•		
	B2	Zipper	Broken?	Replace.	•		
	B3	Fan Motor (Blower)	Not working properly?	Repair or replace.	\$		
	B4	Buckle	Broken?	Replace.	\$		
	B5	T-handle bolt (balloon)	Broken?	Replace.	•		
Cart	C1	Outrigger	Movement not smooth?	Spray grease.	\$		
	C2	T-handle and wheels	Improper movement?	Tighten securely.	\$		
	C3	Bolt for handle	Bolt loose?	Tighten securely.	\$		
	C4	Brake pedal	Linkage not working correctly?	Check, spray grease.	•		
			Notch worn-out?	Replace.	•		
	C5	Stopper	Damaged?	Replace.	#		
	C6	Front wheel pivot	Does not turn smoothly?	Check, spray grease.	\$		
	C7	Tires	Tire pressure not 35.5 psi (294 kPa)?	Adjust.	•		
	C8	Link for front shaft	Linkage not working correctly?	Spray grease.	\$		
	C9	Brake	Not working properly?	Adjust.	•		
	C10	Lever	Lever loose?	Tighten securely.	•		
C11	Counterweight (Outrigger)	Does not work smoothly?	Spray grease.	•			
Electric	E1	Power cable	Defective or worn cable?	Replace.	•		
	E2	Plug	Damaged?	Replace.	#		
• — Check daily		# — Every 20 hours		\$ — Every 100 hours		& — Every 500 hours	

WIRING DIAGRAM



EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol (@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

SUGGESTED SPARE PARTS

GBC/GBCE LIGHTING SYSTEM

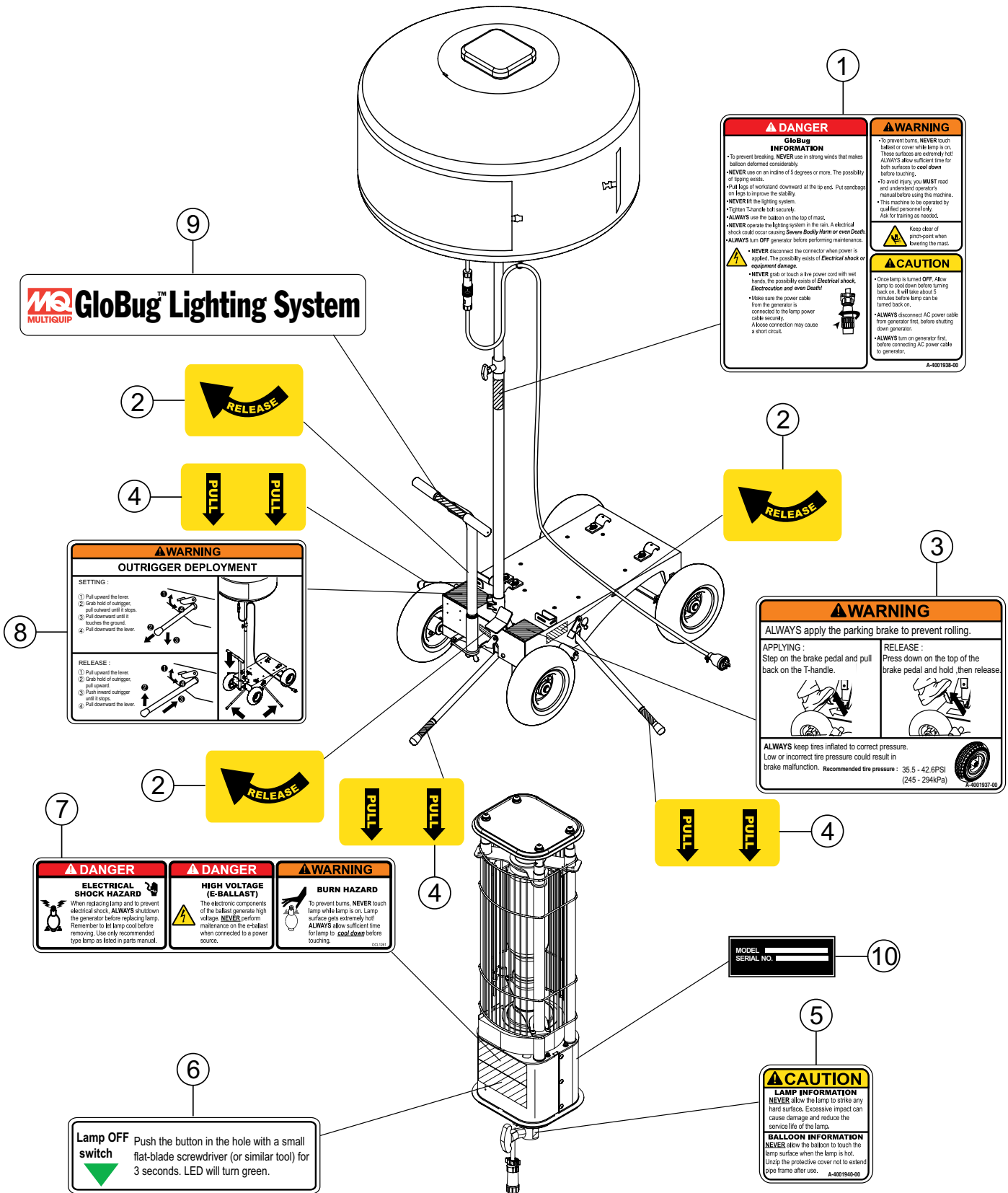
1 to 3 units

Qty.	P/N	Description
2.....	E000080700	LAMP
2.....	A300168900	E BALLAST ASSY
2.....	GBB115DR.....	BALLOON CLOTH CP
3.....	2214500430.....	FILTER

NOTICE

Part numbers on this Suggested Spare Parts list may supersede/replace the part numbers shown in the following parts lists.

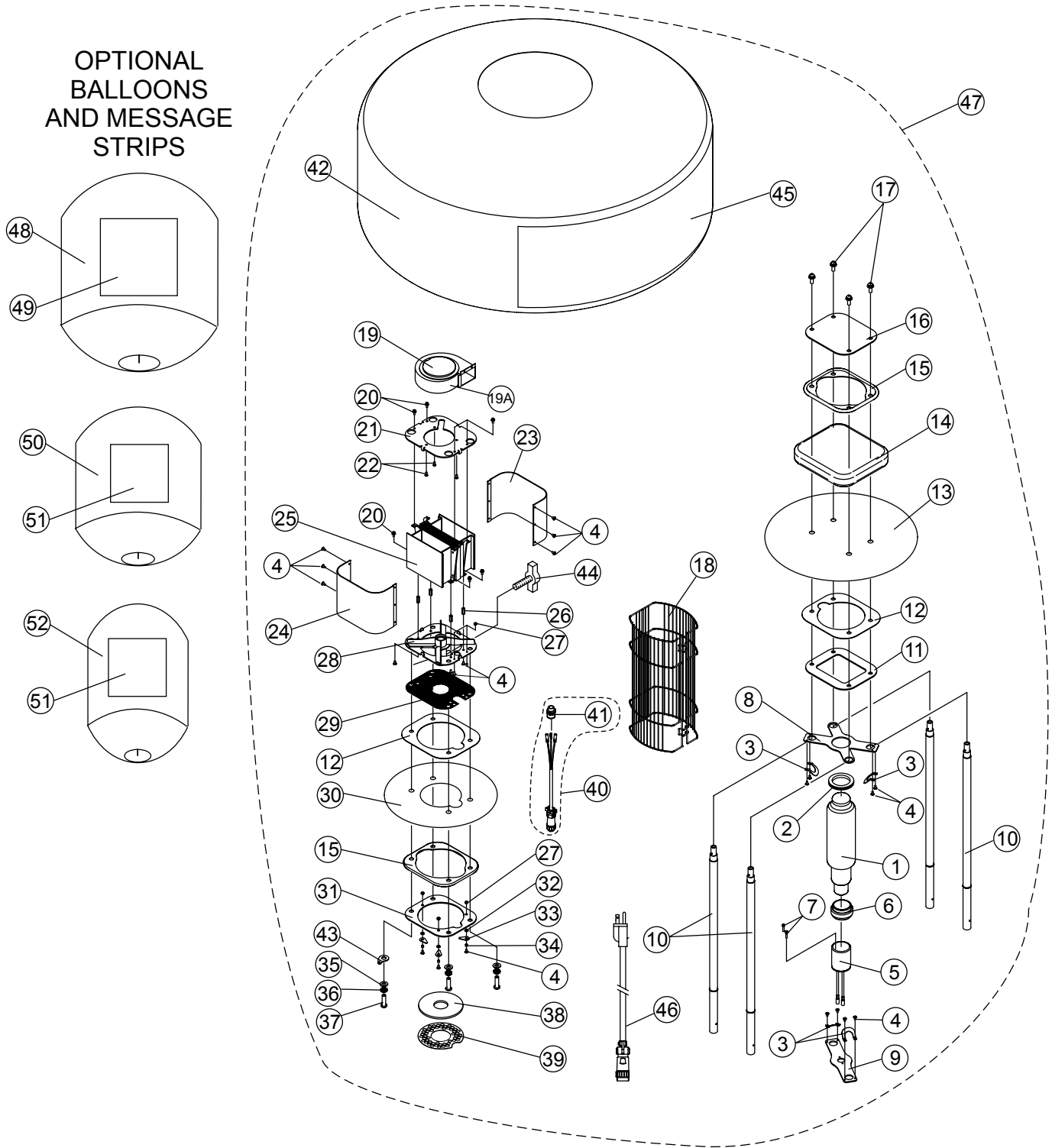
NAMEPLATES AND DECALS



NAMEPLATES AND DECALS

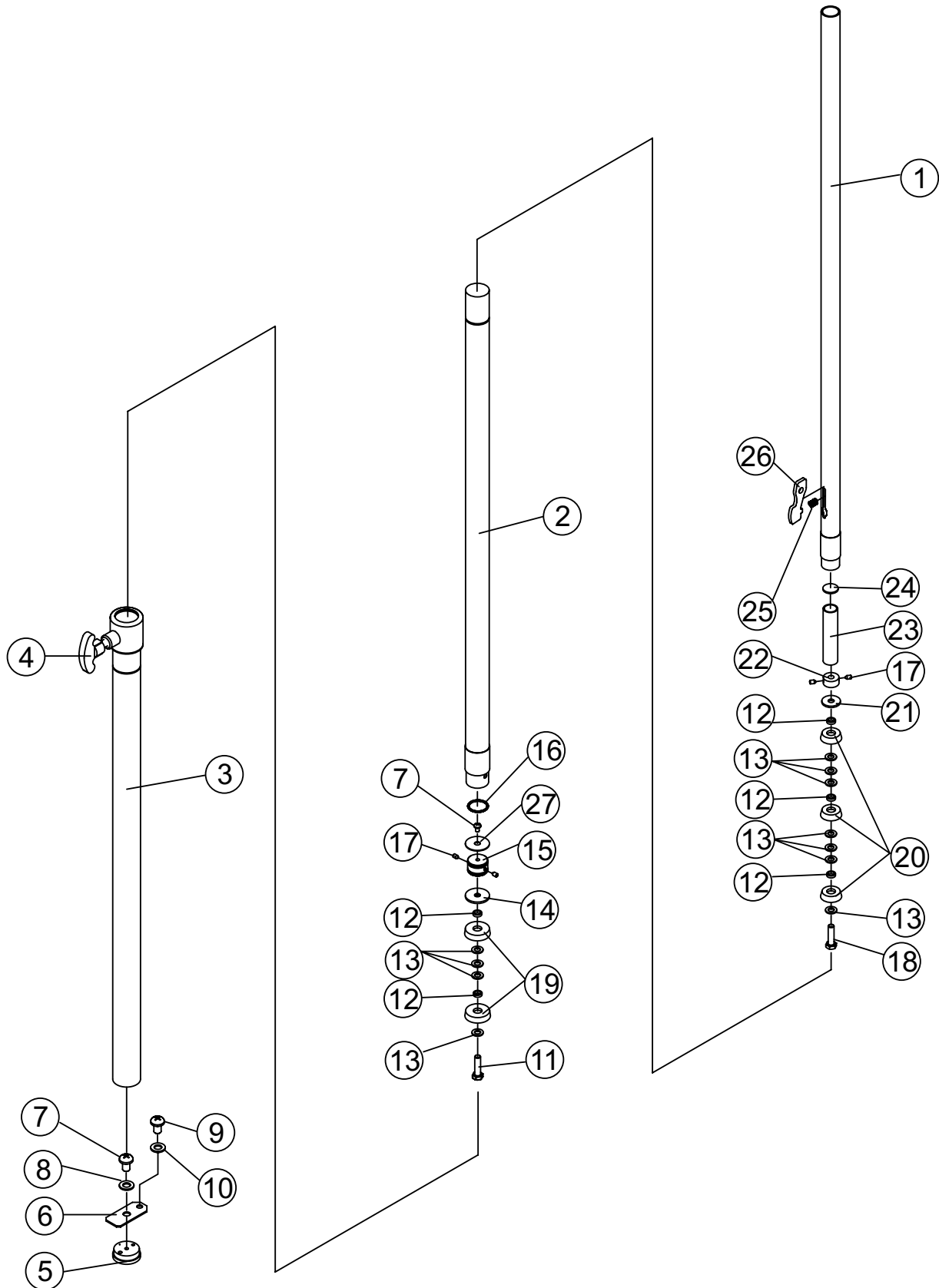
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A400193800	DECAL; GLOBUG INFORMATION	1	
2	A400193400	DECAL; RELEASE	3	
3	A400193700	DECAL; WARNING, PARKING BRAKE	1	
4	A400193500	DECAL; PULL	3	
5	A400194000	DECAL; CAUTION, LAMP INFORMATION	1	
6	A400193900	DECAL; LAMP OFF SWITCH	1	
7	A400166800	DECAL; ELECTRIC SHOCK, HIGH VOLTAGE, BURN HAZ....	1 DCL1261
8	A400193600	DECAL; WARNING, OUTRIGGER DEPLOYMENT	1	
9	A400193300	DECAL; GLOBUG LIGHTING SYSTEM	1	
10		NAMEPLATE.....	1 CONTACT MQ PARTS DEPT.

BALLOON AND LAMP ASSY



BALLOON AND LAMP ASSY

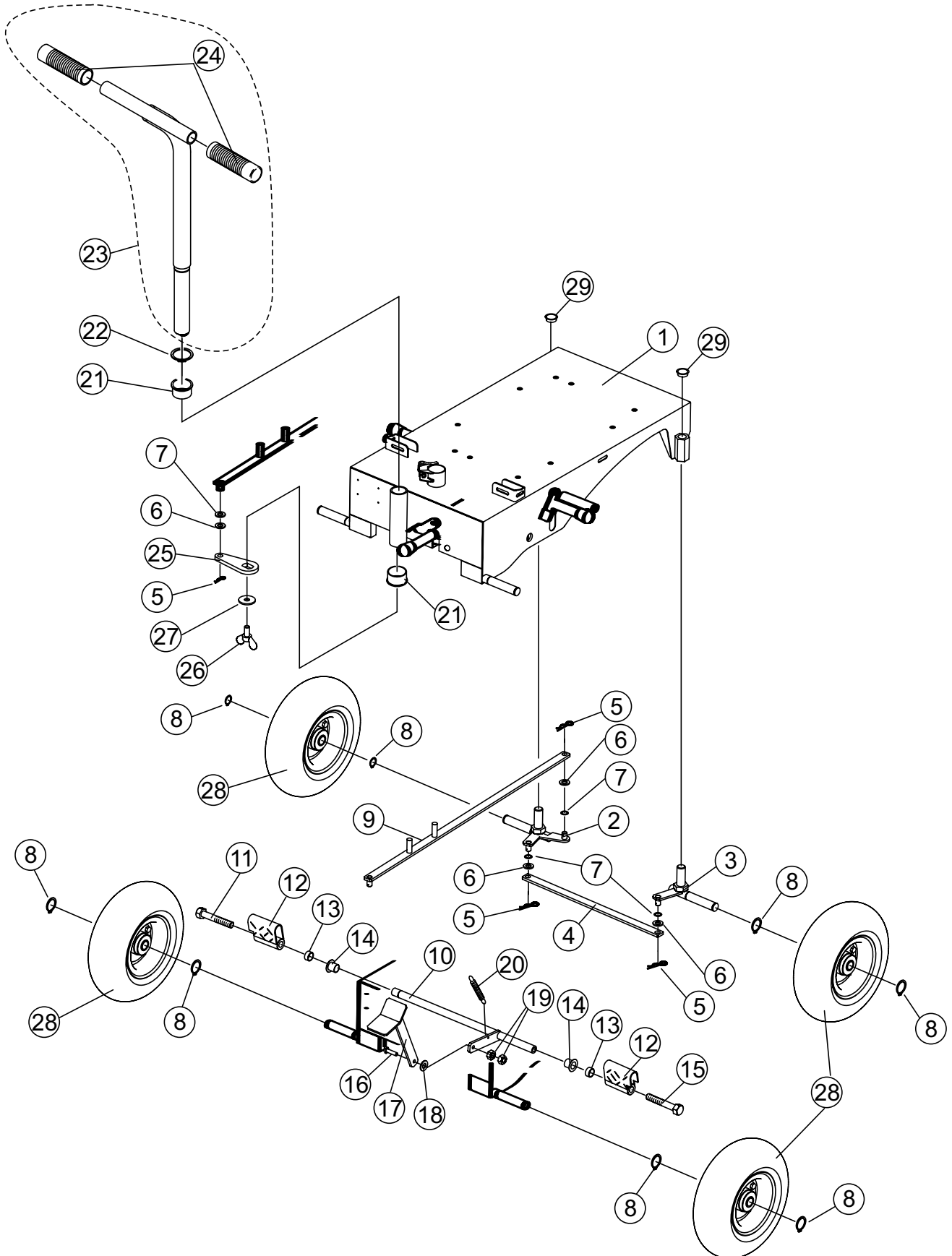
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#	E000080700	LAMP MH1000/BT37/C/U/4200K	1	
2#	0023405012	SCREW (M5x12)	4	
3#	A400195200	STOPPER	4	
4#	0024304008	SCREW (M4x8)	15	
5#	A300167500	SOCKET ASSY	1	
6#	E000038200	RUBBER	1	
7#	0025304025	SCREW & WASHER (M4x25)	2	
8#	A300174000	LAMP HOLDER	1	
9#	A300160601	PLATE (LAMP)	1	
10#	A200057701	MAIN POLE (EX) CP	4	
11#	0024304004	SCREW (M4x4)	8	
12#	2214500230	SEAL (FLAT)	2	
13#	A100061200	SHEET (TOP) CP	1	
14#	A100056900	BALLOON COVER CP	1	
15#	A300162400	SEAL (PACKING)	2	
16#	A300165100	PLATE (TOP)	1	
17#	0014808025	BUTTON SCREW & WASHER (M8x25)	4	
18#	A100055800	LAMP GUARD CP	1	
19#	A300168800	FAN MOTOR ASSY	1	
19A	E000130100	CAPACITOR, FAN MOTOR, GB113, 2µF, 250V	1	
20#	0023304012	SCREW & WASHER (M4x12)	8	
21#	A300164900	PLATE (FAN)	1	
22#	0023204006	SCREW (M4x6)	3	
23#	A300160002	COVER 1	1	
24#	A300160100	COVER 2	1	
25#	A300168900	E BALLAST ASSY	1	
26#	E000070000	SUPPORT NUT	4	
27#	0033104000	NUT (M4)	5	
28#	A200057601	FLANGE	1	
29#	A300165000	PLATE (GUARD)	1	
30#	A100061000	SHEET (BOTTOM)	1	
31#	A300145801	BOTTOM PLATE	1	
32#	E000009701	WAVE WASHER (M5)	3	
33#	A400030700	STOPPER (FILTER)	3	
34#	E000077500	SPACER	3	
35#	0043110000	WASHER (M10)	4	
36#	0043210000	SPRING WASHER (M10)	4	
37#	0014710035	BUTTON SCREW (M10x35)	4	
38#	2214500430	FILTER	1	
39#	A300145901	PLATE (AIR)	1	
40#	A300167600	MAIN CABLE CP	1	INCLUDES ITEM W/ \$
41\$#	E000072600	METAL GLAND	1	
42#	GBB115DR	BALLOON CLOTH CP	1	CONTACT MQ UNIT SALES
43#	2204510110	WASHER	1	
44#	E000079800	KNOB	1	
45#	GBBALD1	BLANK MESSAGE STRIP (OPTIONAL)	1	CONTACT MQ UNIT SALES
46#	A300135500	AC POWER CABLE	1	
47	GBP	BALLOON/LAMP ASSY	1	INCLUDES ITEMS W/ # CONTACT MQ UNIT SALES
48	GB48	BALLOON CLOTH (OPTIONAL)	1	CONTACT MQ UNIT SALES
49	GB48BMS	BLANK MESSAGE STRIP, 48"X48" (OPTIONAL) ..	1	CONTACT MQ UNIT SALES
50	GB36	BALLOON CLOTH (OPTIONAL)	1	CONTACT MQ UNIT SALES
51	GB36BMS	BLANK MESSAGE STRIP, 36" X 36" (OPTIONAL) ..	1	CONTACT MQ UNIT SALES
52	GB36N	BALLOON CLOTH (OPTIONAL)	1	CONTACT MQ UNIT SALES



MAST ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300169400	THIRD MAST	1	
2	A300169300	SECOND MAST	1	
3	A300169200	FIRST MAST	1	
4	A400187600	KNOB	2	
5	A000017000	PLUG	1	
6	A400112700	LEAF VALVE	1	
7	0023105008	SCREW (M5x8)	2	
8	0043105000	WASHER (M5)	1	
9	0023104008	SCREW (M4x8)	1	
10	0043104000	WASHER (M4)	1	
11	0013108030	BOLT (M8x30)	1	
12	A400110200	WASHER (MAST)	5	
13	0043108000	WASHER (M8)	11	
14	A400092801	WASHER (SECOND MAST)	1	
15	A400188101	BOTTOM PLATE (SECOND MAST)	1	
16	E000074700	O-RING	1	
17	0024705008	SET SCREW (M5x8)	4	
18	0013108040	BOLT (M8x40)	1	
19	A400109600	RUBBER (SECOND MAST)	2	
20	A400180901	RUBBER (THIRD MAST)	3	
21	A400181000	WASHER (THIRD MAST)	1	
22	A400181101	BOTTOM PLATE (THIRD MAST)	1	
23	A400193000	PIPE (LEVER)	1	
24	A400192900	WASHER	1	
25	A400190400	SPRING (HOOK)	1	
26	A400192800	LEVER (LOCK)	1	
27	A400195100	WASHER	1	

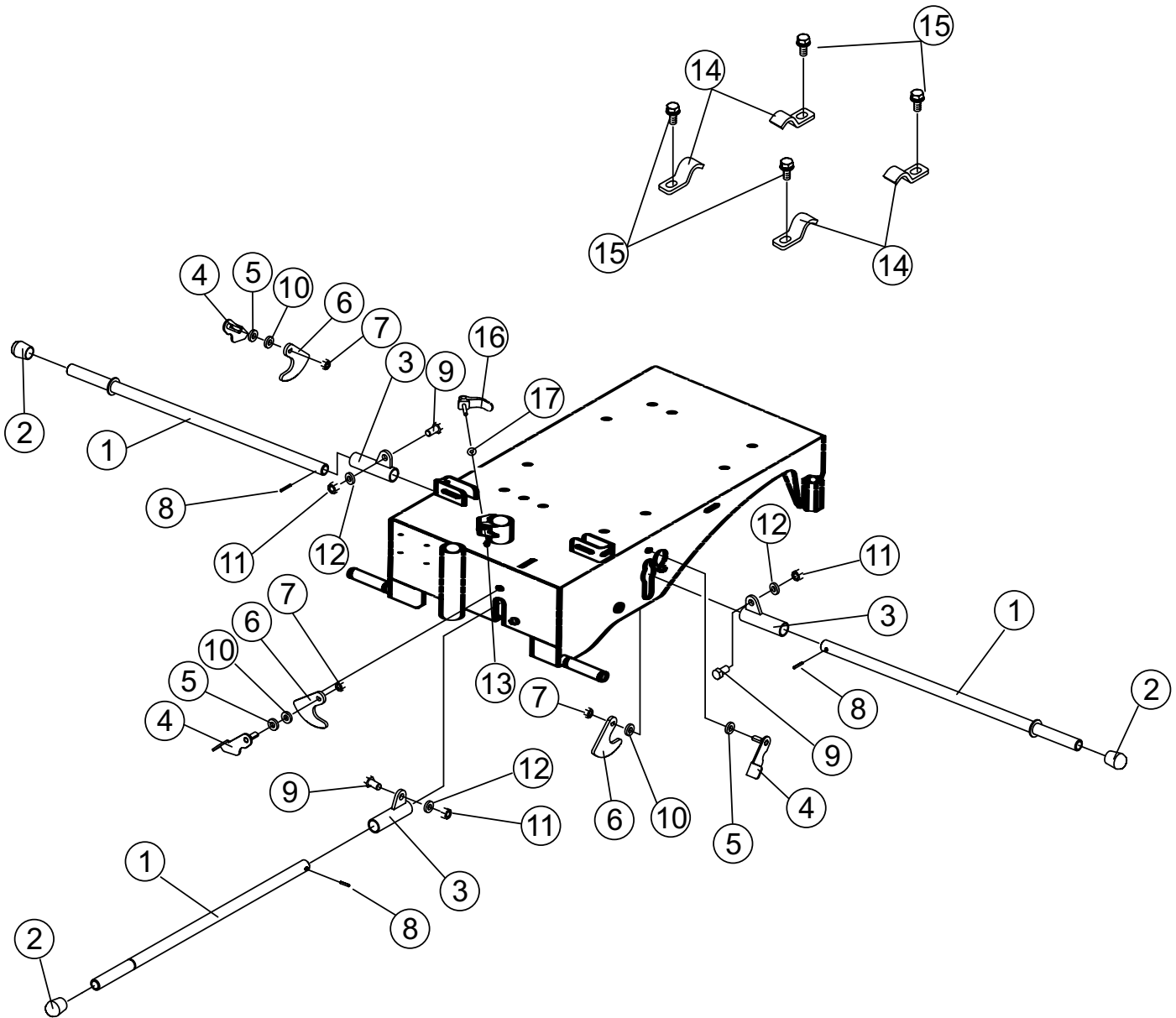
BASE ASSY



BASE ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A100054500	BASE PLATE CP	1	
2	A300147201	FRONT SHAFT (L)	1	
3	A300147301	FRONT SHAFT (R)	1	
4	A300056800	LINK (FRONT SHAFT)	1	
5	0053512000	PIN (12)	4	
6	0043112000	WASHER (M12)	4	
7	1504120130	WASHER (12.2dx18Dx0.5t)	4	
8	0040720000	SNAP RING (20)	8	
9	A300137101	STEERING LINK	1	
10	A300150900	BRAKE SHAFT	1	
11	1521120131	BOLT (M12x75) LEFT SCREW	1	
12	2071214010	BRAKE	2	
13	A400189600	SPACER (BRAKE)	2	
14	1503180130	SLEEVE BEARING (18dx20Dx20)	2	
15	0013212075	BOLT (M12x75)	1	
16	0010308030	BOLT (M8x30) SUS	1	
17	2001200313	BRAKE PEDAL	1	
18	0043108000	WASHER (M8)	1	
19	0033108000	NUT (M8)	2	
20	1041000131	SPRING (BRAKE)	1	
21	1503300130	SLEEVE BEARING (30dx34Dx20)	2	
22	0040730000	SNAP RING (30)	1	
23	A200023001	HANDLE	1	INCLUDES ITEM W/ #
24#	1102700130	HANDLE GRIP	2	
25	A400176500	LINK (HANDLE)	1	
26	0014212025	WING BOLT (M12x25)	1	
27	0043112041	WASHER (12dx40Dx3.2t)	1	
28	E000014500	TIRE ASSY (4.10/3.505)	4	
29	1652000430	CAP	2	

OUTRIGGER ASSY



OUTRIGGER ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300162202	OUTRIGGER CP	3	
2	1641001430	RUBBER FOOT	3	
3	A400175302	HOLDER (OUT, R)	3	
4	A400176901	LEVER (OUT, R)	3	
5	A400114401	WASHER	3	
6	A300147802	WEIGHT (OUT, R)	3	
7	0033210000	SELF LOCK NUT (M10)	3	
8	0053304025	SPRING PIN (M4x25)	3	
9	0013112030	BOLT (M12x30)	3	
10	0043110000	WASHER (M10)	3	
11	0033212000	SELF LOCK NUT (M12)	3	
12	0043112000	WASHER (M12)	3	
13	0033206000	SELF LOCK NUT (M6)	1	
14	A400166400	LOCKING CLAMP	4	
15	0013510025	BOLT & WASHER (M10x25)	4	
16	2212780310	LEVER	1	
17	0043108000	WASHER (M8)	1	

TERMS AND CONDITIONS OF SALE — PARTS

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol (@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave.
Carson, CA 90746
Contact: mq@multiquip.com

Tel. (800) 421-1244
Fax (310) 537-3927

Service Department

800-421-1244
310-537-3700

Fax: 310-537-4259

Technical Assistance

800-478-1244

Fax: 310-943-2238

MQ Parts Department

800-427-1244
310-537-3700

Fax: 800-672-7877
Fax: 310-637-3284

Warranty Department

800-421-1244
310-537-3700

Fax: 310-943-2249

CANADA

Multiquip

4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
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Tel: (450) 625-2244
Tel: (877) 963-4411
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